

REMARKS

The Office action dated August 30, 2006 is acknowledged. Claims 15-30 are pending in the instant application. All of the claims have been rejected. The claims have been amended as set forth above, without adding new matter, to particularly point out and distinctly claim the subject matter which applicant regards as the invention. New claim 32 has been added. Reconsideration is respectfully requested in light of the following remarks.

Rejection of Claims 15-27 and 29 under 35 USC 102(b)

Claims 15-27 and 29 have been rejected under 35 U.S.C. 102(b) as being anticipated by Korsen (US 5,956,871).

Korsen discloses a snap-lock spike member. The Examiner points out that the snap ring 40 is a locking spring. However, element 40 in Korsen is a snap ring. The snap ring 40 is used to snap-lock the spike. This is different than the locking spring 7 of the present disclosure. In the present invention, the cleat is locked in the locking position by the spring sides 8, 9 which are tangential to the locking pin. Furthermore, Korsen does not disclose support walls 6', 6'' as claimed in the present invention. Paragraph [0021] of the present specification discloses that the spring is pre-tensioned in the direction of the receptacle 2 and both sides of the spring 8, 9 are supported by the support walls 6', 6''. Korsen does not disclose such support walls.

The following is a description of how the snap ring of Korsen functions differently from the locking spring of the present invention, and thus cannot be considered a locking spring. To remove the cleat 50 of Korsen, it must be pulled out

against the whole spring force of the snap ring 40, which is difficult. Hence Korsen recommends using a tool to remove the cleat (Column 3, lines 42-51). In the present application, the tool is only used to turn the cleat against the low force of the spring sides 8, 9 and after turning the cleat, the cleat is removed automatically by the spring force. This occurs due to spreading surfaces 14, 14' which push the spring sides 8, 9 apart as shown in Fig. 7 (See Applicant's para. [0026]). Furthermore, snap ring springs of Korsen allow the cleat to rotate in the engaged position (See Column 3, lines 31-36). This is not possible, nor desired, with the locking spring of the present invention, due to the locking surfaces 12, 12' (See Applicant's para. [0025]). The cleat cannot turn because the shape of the locking pin will not allow for rotation, unless an outside force is imparted on the cleat (See Applicant's para. [0026]). A tool 13 can be used to impart this force (Id.). Thus, the locking spring as disclosed by the specification and drawings of the present invention is not a snap ring spring as disclosed in Korsen. The structure of the locking spring is fundamentally different than the snap ring shown in Korsen.

In view of the above amendments and arguments regarding claims 15-27 and 29, the Applicant respectfully submits that this rejection is overcome and therefore the withdrawal thereof is requested.

Rejection of Claims 15-24 and 27-30 under 35 USC 102(b)

Claims 15-24 and 27-30 have been rejected under 35 U.S.C. 102(b) as being anticipated by Sato (US 2002/0020079).

Sato also discloses a spring ring 12. The Examiner points out that the spring ring

12 is a locking spring. However, element 12 in Sato is not similar in structure nor does it function like the locking spring 12 of the present disclosure. Sato is very similar to Korsen. The spring ring 12 is used to snap-lock the spike. This is different than the locking spring 7 of the present disclosure. In the present invention, the cleat is locked in the locking position by the spring sides 8, 9 which are tangential to the locking pin. Furthermore, Sato does not disclose support walls 6', 6'' as claimed in the present invention. Paragraph [0021] of the present specification discloses that the spring is pre-tensioned in the direction of the receptacle 2 and both sides of the spring 8, 9 are supported by the support walls 6', 6''. Sato does not disclose such support walls.

Furthermore, the spring ring of Sato does not allow the cleat to be truly locked in place, and thus cannot be considered a locking spring. It is possible for the cleat of Sato to be pulled out due to impact, by imparting a longitudinal force on the cleat away from the receptacle 9. The engaging surface 6 has an angled surface which would slide along the spring ring to force the spring ring out and thus disengage the cleat if pulled out (See Figure 10 of Sato). As mentioned above, the locking surfaces 12, 12' of the present invention are flat and planarly abut against spring sides 8, 9 to prevent the cleat from being pulled out (See Applicant's para. [0025], Fig. 6). Thus, the structure of the locking spring of the present invention is fundamentally different than the spring ring disclosed in Sato.

In view of the above amendments and arguments regarding claims 15-24 and 27-30, the Applicant respectfully submits that this rejection is overcome and therefore the withdrawal thereof is requested.

Conclusion

For the foregoing reasons, it is believed that the present application as amended is in condition for allowance, and such action is earnestly solicited. The Examiner is invited to call the undersigned if there are any remaining issues to be discussed which could expedite the prosecution of the present application.

Respectfully submitted,

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